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THE AIR POLLUTION PROBLEM IN STEUBENVILLE, OHIO

Jean J. Schueneman, et al

Robert A. Taft Sanitary Engineering Center
Cincinnati, Ohio

December 1956

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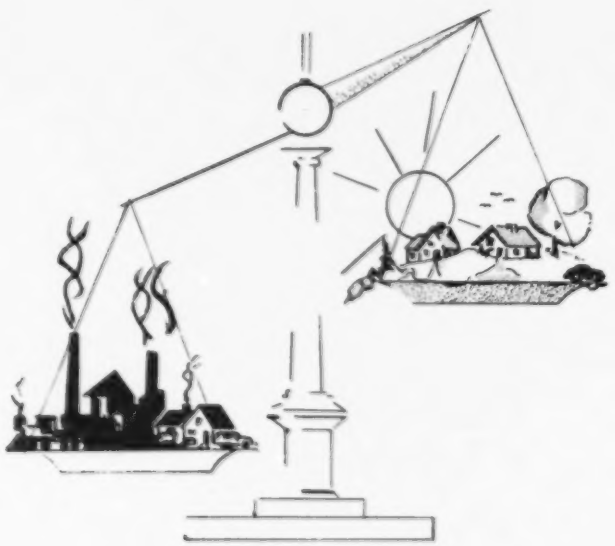
Prepared at the Request of the
Steubenville Department of Health



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U.S. Department of Health, Education, and Welfare
Public Health Service
Robert A. Taft Sanitary Engineering Center
Cincinnati, Ohio

December, 1956

THE AIR POLLUTION PROBLEM

IN

STEUBENVILLE, OHIO

Prepared at the Request of the
Steubenville Department of Health

Jean J. Schueneman
Public Health Engineer

and

Samuel Rogers
Sanitarian

Community Air Pollution Program

U.S. Department of Health, Education, and Welfare
Public Health Service
Robert A. Taft Sanitary Engineering Center
Cincinnati, Ohio

December, 1956

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FINDINGS AND RECOMMENDATIONS

Findings

1. Although no measurements of atmospheric pollution were made, from a general evaluation of the sources of pollution, observed manifestations of pollution and study of meteorological, topographic and other factors, there appears to be a considerable air pollution problem in Steubenville.
2. This problem is not confined to the City of Steubenville but is part of an air pollution problem area including the Ohio River Valley portion of Jefferson County, Ohio and Brooke and Hancock Counties, West Virginia.
3. Although an exact analysis of the relative importance of the various sources of pollution in this tri-county area was not made, it is clearly indicated that a few large individual sources are responsible for a large portion of the pollution discharged to the atmosphere.
4. A control program operating within the boundaries of Steubenville could bring about some limited improvement in the air resources of the area, but it will be necessary to have control programs operating in other portions of the tri-county area to effect satisfactory control of the problem.
5. A sincere interest has been evidenced on the part of the general public, government and industry in improving the quality of the atmosphere in the tri-county area.

Recommendations

1. Consideration should be given to the preparation of an inventory of emissions of pollution to determine the relative importance of the several individual and classes of pollution sources; e.g., burning of coal, clay products manufacturing, refuse disposal, etc. This could be a cooperative study participated in by the various governmental agencies concerned and perhaps including private interests. It could be accomplished by a governmental unit or by contract with a capable consulting organization or other entity in a nominal time at a small cost.
2. The several local governmental agencies can achieve some limited control of air pollution through more vigorous enforcement of existing ordinances and regulations.
3. Air pollution ordinances or regulations designed to meet the indicated needs can be enacted and suitable provisions made for their implementation, including the provision of a suitable number of technically qualified personnel, laboratory and field equipment, etc. For the most effective program, this should be done on a tri-county basis. However, because of the delays and difficulties inherent in the interstate aspects of tri-county control, the best immediate objective is county-wide air pollution control in Jefferson County. Failing this objective, enactment of a Steubenville City Ordinance would be the thing to do. Regardless of whether or not legislation materializes, the Citizen's Committee on Air Pollution Control and other groups should work toward voluntary correction of conditions found to be unsatisfactory. Such voluntary programs, however, in the

absence of effective legislation and official enforcement, have achieved only very limited success in other areas.

4. Should any official or voluntary group, short of an official tri-county air pollution control agency, be activated, it should work for the initiation of similar activity in parts of the area not included in its own. If any set of standards is adopted by any agency in the area, efforts should be made to secure uniformity in standards adopted by other agencies in the area.

5. If the City of Steubenville establishes an air pollution control unit in its Department of Health, it is suggested that consideration be given to having its services made available to other cities in Jefferson County by contract, as provided in existing law governing activities of health agencies in Ohio. Such cities would need to have suitable legislation in force. The possibility of similarly contracting services to the West Virginia counties and municipalities in the tri-county area should also be investigated.

I. PURPOSES OF STUDY

A letter from Mayor Samuel S. McCormick of Steubenville to Mr. John Laux, Chairman, Steubenville Citizen's Committee on Air Pollution Control, suggesting information be obtained concerning Federal assistance for air pollution control, was forwarded by Mr. Laux to Senator George Bender, who, in turn, forwarded it to the Public Health Service. Congressman Wayne Hays was also informed of the request by Steubenville authorities and his office advised the Public Health Service of it by telephone. Acting on this verbal

request, Mr. Julius Pizzoferrato, Health Commissioner of Steubenville, was invited, by telephone, to attend a conference on July 9 in the offices of Dr. Thomas Mancuso, Chief of the Industrial Hygiene Division of the Ohio Department of Health, with State and Public Health Service representatives. After this conference, in a letter of July 10, 1956, (Appendix A) Mr. Pizzoferrato requested the Public Health Service to make an air pollution survey in Steubenville. On July 31, a reply (Appendix B) was sent to Senator Bender; and on August 13, a reply (Appendix C) was sent to Mr. Pizzoferrato, agreeing to the assignment of two members of the Community Air Pollution Program staff to make a general appraisal of the atmospheric pollution problem in and around Steubenville and make suggestions for a long-range local program directed toward the preservation and restoration of the quality of the atmosphere in the area.

II. CONDUCT OF STUDY

Two professional staff members of the Community Air Pollution Program of the Public Health Services' Robert A. Taft Sanitary Engineering Center spent August 28 and 29, 1956, in and around Steubenville, Ohio. They were joined the first day by a representative of the Ohio Department of Health, Industrial Hygiene Division. Many of the contacts made were in the company of the Health Commissioner of Steubenville, who also made arrangements for conferences, visits and inspection trips. The information in this report was developed through study of readily available printed material and through evaluation of information gained during inspections and

in discussions with persons associated with the following agencies, whose cooperation and contribution of information are gratefully acknowledged:

City of Steubenville

Board of Health

Clerk of Council

Councilmen

Department of Health

Mayor

Planning Commission

Treasurer

Hancock County, West Virginia Department of Health

Jefferson County, Ohio

Board of Health

Engineer

Manufacturers Light and Heat Company

Ohio Department of Health, Industrial Hygiene Division

Steubenville Chamber of Commerce

Steubenville Citizen's Committee on Air Pollution Control

Wheeling Steel Corporation

It must be recognized that this report cannot approach complete fulfillment of the purposes set forth. Sufficient information could not be developed within the brief time available for the study. However, it is believed that enough information has been brought together and evaluated to permit partial fulfillment of the purposes

and to furnish a base from which reasonable additional moves may be made in the future toward understanding and improving the atmospheric pollution situation.

III. GENERAL DESCRIPTION OF THE AREA

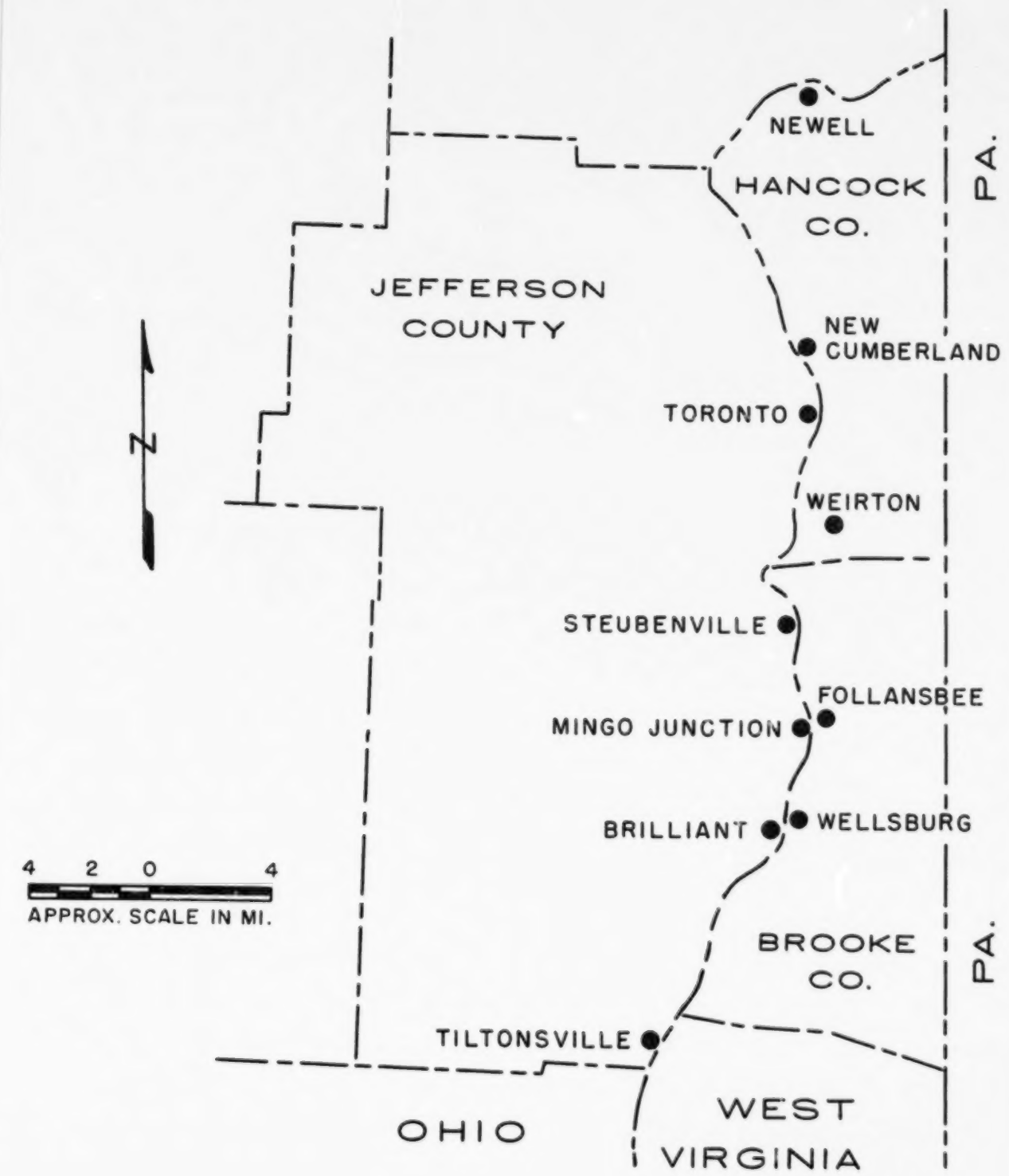
Geography

Steubenville is located on the Ohio River, on the eastern boundary of Ohio (Figure 1). It is the county seat of Jefferson County. Pittsburgh, Pennsylvania lies about 40 miles to the east and Wheeling, West Virginia is about 24 miles to the south. Across the Ohio River, about three miles away, is the City of Weirton, West Virginia.

The town is situated along the river bank at the bottom of a valley, with hills rising four to six hundred feet above river level. The valley ranges in width from one to five miles at a level of about 400 feet above the river. The valley is generally about two and one-half miles wide at that level. The river itself is about three-eighths of a mile wide. Several fast-running streams feed into the Ohio River in the area and have carved their own valleys out of the hilly terrain on both sides of the Ohio. The City is situated at an elevation of 675 feet above sea level.

The City of Steubenville is irregularly shaped, resembling the letter L. Its extreme dimensions are about three by three and one-half miles. The area of the City is five and three-fourths square miles.

Jefferson County is somewhat irregular in shape but is essentially a rectangle with the Ohio River as its eastern boundary. It is about



JEFFERSON COUNTY, OHIO AND HANCOCK AND BROOKE COUNTIES, WEST VIRGINIA

6 2

30 miles long (north and south) and 14 miles wide.

Hancock County, West Virginia, is across the river from the northern portion of Jefferson County and is about 16 miles long (north and south) and 7 miles wide. Brooke County, West Virginia, is across the river from the southern portion of Jefferson County and is about 15 miles long (north and south) and about 7 miles wide.

Population

The 1950 population of the three counties in the area and cities of over 2,000 population are given in Table I. From 1940 to 1950, both

Table I

Jefferson County, Ohio	96,495	Brooke County, W. Va.	26,904
Steubenville	35,872	Wellsburg	5,789
Toronto	7,253	Follansbee	4,435
Mingo Junction	4,464	Hancock County, W. Va.	34,388
Tiltonsville	2,202	Weirton	24,005
Brilliant	2,066	New Cumberland	2,119
		Newell	2,101

TOTAL - 157,787

Steubenville and Jefferson County suffered a small decrease in population, which may be attributable, in part, to pollution of the atmosphere.

These cities of 2,000 people or more represent 57 per cent of the population of the three counties: 54 per cent, 38 per cent and 82 per cent, respectively, in Jefferson, Brooke and Hancock Counties. The percentage of population in urban centers would be higher if those living near the cities were also included.

Industrial and Commercial Activity

An indication of the major manufacturing and utility employers in the tri-county area is given in Table II.

Table II

Manufacturing and Utility Establishments Employing Over 100 People

Type of Activity	Number of Establishments	Estimated Number of Employees in these Establishments
Steel	4	23,500
Metal Products	7	1,425
Coal	2	1,175+
Paper Products	6	1,050
Clay Products	5	875
Electric Utility	3	725
Others*	5	1,975
TOTAL	32	30,725+

*Includes ferro-alloys, railroad, tar products, slag and bakery products.

Other activities in establishments employing less than 100 people include metal decorating and plating, wood, stone, glass and concrete products, sand, gravel, and the usual assortment of other businesses.

The total labor force for the entire tri-county area, including agricultural, government, service and other workers, is estimated at 66,000 people, indicating that nearly 50 per cent of the workers in the area are dependent on the 32 establishments employing over 100

people for their livelihood and over one-third dependent specifically on the four steel plants.

Meteorology

No meteorological observations are made regularly in Steubenville. The nearest station at which observations are made is the Greater Pittsburgh Airport (Table III). These data are presented to give a partial picture of the climatological conditions that prevail in this part of the country.

From the data in the table, study of topographic maps of the area, a knowledge of general weather phenomena in this part of the country, and general information concerning air flow patterns in valleys of the type encountered here, Steubenville and other nearby riverside towns are probably unfavorably located for dispersing atmospheric contaminants. The location of a city in a valley may result in increased strength and duration of temperature inversions, decreased horizontal wind speed and more frequent occurrence of low lying fogs which tend to restrict dispersion of pollutants as compared to more level terrain. Complete understanding of conditions would require the collection of meteorological data in the Steubenville area and its analysis.

Land Use

Most of the heavy industrial land uses are located along the river's edge. Unfortunately, in Steubenville and other portions of the area, it is not uncommon to find large pollution sources located adjacent to residential and light commercial uses, thus, exposing them to heavy concentrations of pollution. Improvement of this intermixture of

Table III

Meteorological Observations
Greater Pittsburgh Airport

Long-term Normals

Month	Daily Temperature Degrees Fahrenheit				Surface Winds			% Poss. Sunshine	Precipitation Inches
	Mean	Min.	Max.	Degree Days	Speed MPH	Preval. Direction	% of Time Calm 0-3 MPH		Total
Dec.	--	--	--	---	----	---)		--	---
Jan.	29	21	37	992	11.6	WSW)	6	32	2.8
Feb.	30	21	38	879	12.0	WSW)		38	2.4
March	39	29	48	735	12.5	WSW)		45	3.2
April	49	38	59	402	11.8	WSW)	5	50	3.2
May	60	49	71	137	11.0	WSW)		58	3.8
June	69	58	79	13	9.2	S)		62	4.1
July	72	62	83	-0-	8.5	WSW)	8	65	3.9
August	70	59	81	-0-	8.1	WSW)		61	3.1
Sept.	65	55	75	56	8.3	WSW)		62	3.0
Oct.	53	43	63	298	9.6	WSW)	6	54	2.4
Nov.	41	33	49	612	11.4	WSW)		39	2.6
Dec.	31	24	38	924	11.6	WSW	-	31	2.5
Year	50.6	41	60	5,048	10.4	WSW	-	51	36.9

land use will not take place over any short period of time. Even when land use in Steubenville fully conforms to the zoning plan adopted in February 1955, a substantial portion of the residential and commercial areas will lie within one mile of a heavy industrial zone. Therefore, eventual separation of the two types of land use cannot be relied upon to prevent exposure of people and their possessions to materials discharged to the air by industry, since pollutants can easily be carried that far and much farther. However, if a progressive attitude is maintained and adequate attention is given to the zoning program, some air pollution benefits can be derived.

IV. SOURCES OF POLLUTION

Industry and Commerce

There are about 110 manufacturing establishments in the tri-county area. The relative magnitude of some of these concerns has been indicated previously. The sources which probably contribute major quantities of pollution are the steel mills, coal-fired steam power plants, coke plants, ferro-alloy plants, and foundries. Other probable sources of pollution existing in the area include establishments producing clay, paper, wood, and concrete products, and those engaged in paint spraying and baking, coal and slag handling, metal coating, and refuse disposal.

General Public

The general public engages in two major activities other than transportation which create air pollution. One is the combustion of fuel, either coal, wood, oil or gas, for the purpose of heating homes

or water. Coal and wood are the fuels most likely to create visible smoke, but all these fuels create gaseous pollutants. Of these fuels, gas causes the least air pollution. It is estimated that 50 per cent of the 9,455 dwelling units in Steubenville are heated with gas, 48 per cent with coal, and 2 per cent with oil. The trend is toward a greater use of gas. Most homes have central heating plants. It is not known whether these estimates can be applied to areas outside Steubenville.

The other activity of the general public which causes air pollution is the disposal of refuse by burning. The practice of burning refuse on residential premises is not generally prevalent in Steubenville, although a small percentage of the people engage in it. The situation in areas outside of Steubenville is not known.

Most refuse produced in Steubenville is disposed of in a sanitary landfill, which was reported to be fairly free from fires and objectionable odors.

Transportation

Automobiles, trucks and buses emit both gaseous and particulate pollution. In certain areas of high population and traffic density, the contribution of these sources of pollution is of great concern. However, it is not likely that these sources will require specific control in Steubenville at this time. Steps taken elsewhere will probably lead to changes in automotive engines which will be incorporated at the factory and thus be of eventual benefit to this area. In the future, however, consideration might be given to the application of measures to reduce odorous emissions from diesel powered vehicles.

Seven railroad companies operate in the tri-county area as well as yard locomotives at large industrial plants. A substantial majority of the locomotives used are diesel powered and should not create problems in this area, if proper attention is given to fuel quality and engine maintenance. The coal-burning locomotives, however, may emit smoke and fly ash.

River traffic is heavy in this area, with a total of 22,000 tow boats bearing about 13,700,000 tons of freight passing through the locks at Dam Number 10 just above Steubenville during calendar year 1955. Although nearly all of these tow boats are diesel powered, there may be some smoke and fly ash from those which burn coal. It is doubtful that a substantial official effort on the part of agencies in the tri-county area is warranted with regard to these boats.

V. THE AIR POLLUTION PROBLEM

Considerable blackening of buildings exists in Steubenville, indicating a substantial pollution level due to smoke and soot. Accumulations of settled dust were seen on surfaces which, after allowing for ordinary cleaning and rainfall, appeared to be excessive. Visibility was observed to be reduced because of materials suspended in the air during the study days (August 28 and 29) despite the fact that no space-heating units were in use. Therefore, greater reduction in visibility would be expected during the fall when dispersion conditions are least favorable and the pollution from space heating is added to that present in August. Visible emissions were observed from a number of sources. The taste and odor sensations associated with a smoky atmosphere were experienced upon arriving in the city from outside.

A number of large pollution sources and several urbanized areas are located in proximity to each other in the tri-county area. It is estimated that about one-third of the tri-county area in the river valley and more than half of the tri-county population are affected by the pollution discharged. This is an area problem, requiring for its ultimate solution coordinated area effort on the part of the three counties and the cities in them.

The people of this area are aware of the activity directed toward improvement of the atmosphere in the nearby City of Wheeling, West Virginia, where an air pollution program was recently inaugurated. They also know of the dramatic improvements made in the quality of the atmosphere in nearby Pittsburgh, Pennsylvania through an effective program.

A Citizen's Committee on Air Pollution Control was appointed by the Mayor of Steubenville and has been active in several projects. A similar committee was functioning at one time in Toronto, Ohio, but no information was obtained relative to its present status.

The Chamber of Commerce of Steubenville has indicated an interest in supporting a reasonable air pollution program. It has had committees in the past which were interested in air pollution matters. The local Bar Association has indicated a willingness to assist in the drafting of an air pollution control ordinance.

The Health Commissioner of Steubenville, in his 1955 annual report, recommended again that his City assume leadership for the area in the field of smoke control. The State Department of Health conducted a

study of air pollution in Brilliant, Ohio, and sizable studies have been undertaken at the Weirton Steel Company. There have been periodic local television programs, meetings, and press items relative to air pollution matters.

In view of the foregoing, it is clear that the citizens in this area are interested in obtaining a cleaner atmosphere.

VI. AIR POLLUTION CONTROL

Official Agencies Concerned

The City of Steubenville supports a sizable municipal government. In 1955, a total of about $4,500,000 was disbursed, including $1,800,000 for municipal operations; $2,300,000 for improvements; and $400,000 for debt service. The total is about $125 per capita. The highest paid city employee receives less than $6,000 a year. The Health Department has an annual appropriation of about $56,000 and 14 employees.

The Jefferson County Board of Health supports a staff of seven people, as does the Hancock County Health Department.

The Ohio Department of Health, through its Division of Industrial Hygiene, extends technical assistance on air pollution matters to municipalities, but at present, due to limitations of staff and budget, any extensive assistance along these lines will not be possible.

Ordinances and Laws

1. General Regulations of Steubenville, (1947)

Section 5-51, relating to nuisances, extends powers to cause the abatement of situations, ".....which, by occasioning noxious exhalations or noisome or offensive smells, becomes injurious to

health, comfort or property of individuals or the public....."

Section 5-351-D requires that no rubbish shall be burned on the premises of a junk yard or shop without first obtaining written permission from the Fire Chief.

Section 6-150 prohibits exposed bonfires and the like except after obtaining written permission from the Fire Chief, and only in receptacles approved by him.

2. Steubenville Zoning Ordinance

Sections particularly applicable to air pollution matters involve prohibition of residential uses in general business and industry zones, and vice versa (Sections 3-5-1-1 and 3-6-1-1); the prohibition of certain offensive trades in any zone within the City (Sections 4-6-1 through 4-6-10); restriction on non-conforming uses (Section 5-1) and the provision to permit heavy industry uses in general business and industry zones, under certain conditions (Section 6-5-2). Subject to qualifications previously discussed (Section III, Land Use), this ordinance should serve all air pollution needs, from a zoning standpoint.

3. Steubenville Building Code

Provisions which will contribute to prevention of smoke are in the recently enacted building code. Articles 30-10-3, 30-10-9, and 30-10-11 provide for the use of proper fuel and flue sizes in oil-burning, warm air heating systems. Article 30-11 (all sub-sections) regulates the construction of stoker-fired, warm air heating systems. Articles 30-13-1, 30-13-4-1, and 30-13-5-1

regulate boilers and require larger coal-fired boilers to have stokers installed. Article 32-1 prohibits the burning of rubbish on or near the site of construction operations and requires that dust be controlled.

Enforcement of all of these sections will be of some assistance in an air pollution control program.

4. Ohio Revised Code

The current Ohio Code contains provisions which are either directly applicable to the matter at hand or which could be used as guidelines in possible future action.

Section 3709.01 establishes city and general (county) health districts and makes provision for the possible unification of general and city health districts.

Section 3709.03 sets forth a means for providing a working board of health for a general (county) health district.

Section 3707.01 gives city and general health districts the authority to abate and remove nuisances. This authority could be used by existing health agencies to seek correction of any nuisance conditions which exist within their jurisdiction because of air pollution.

Section 3709.08 authorizes city health districts to secure health services on a contract basis from another city health district or general health district. This provision might be applicable to provision of air pollution control services in several cities (having suitable ordinances or regulations) through the use of a control unit established in one city health district.

Section 3709.20 authorizes city health districts to make orders and regulations for the prevention, abatement or suppression of nuisances. Section 3709.21 grants the same powers to general (county) health districts. This power might be considered as a basis for regulations relating to atmospheric pollution.

Section 3709.22 empowers the boards of city and general health districts to inspect nuisances dangerous to the public health or comfort. This might be sufficient authority under which studies of air pollution could be made without any additional law, ordinance, or regulation.

Section 715.44 grants municipal corporations the right to regulate smoke, declare smoke emissions to be a nuisance and prescribe and enforce regulations for the prevention of dense smoke emissions. This indicates that the state has delegated sufficient authority to cities in the field of smoke regulation.

Section 307.15 allows county commissioners to contract with other legislative authorities within the county to exercise powers possessed by the other authority.

Study could be given to an arrangement within the provisions of this clause whereby the county commissioners would undertake enforcement of air pollution ordinances in effect in municipalities.

Other sections of the revised code dealing with sanitary authorities, collection and disposal of refuse and others may well indicate patterns which would be useful in developing the best, most economical air pollution control program.

VII. SUGGESTED APPROACH TO THE PROBLEM

Inventory of Pollution Emissions

In order to adequately plan the approach to this problem, a more detailed inventory should be made of the various sources of pollution to arrive at some conclusions as to their relative significance. Based on such information, an enforcement program could be directed toward the main problems and thus make most judicious use of resources available for control purposes. Such an inventory of emissions would also be very helpful in other unofficial efforts which may be made to obtain abatement of unsatisfactory conditions.

Such an inventory of pollution emissions can be prepared with sufficient accuracy for the purpose from information on the amounts of coal burned and gasoline consumed, the quantity of various products produced, materials used in processes, kinds of processes and equipment employed, etc. A more detailed study should be made in the Ohio River Valley (where the principal sources are concentrated) than in the remainder of the area. It would be most desirable to include the entire tri-county area in a unified study.

Sufficient authority to conduct such a study appears to exist in Ohio. West Virginia agencies may have similar authority. The study could be completed in a nominal length of time and for a reasonably small sum of money. It could be financed by contributions from the various governmental agencies in the area, industry and civic groups. It could be carried out by a governmental unit, private consulting firm, or other competent entity.

Leadership in getting such a study under way could stem from the Steubenville Department of Health or a nonofficial group.

Enforcement of Existing Laws

As described previously, a number of legal authorities exist which can be utilized by Steubenville and Jefferson County agencies. Exercise of these authorities would accomplish some limited improvement in the air pollution situation; but because many sources of pollution are not situated within the jurisdiction of these two agencies, and since existing legislation does not provide all of the needed authority, other actions would be necessary to make satisfactory control possible.

Possible Alternatives for Control Regime

1. General Considerations

Local authorities may decide that enactment of some form of air pollution control legislation is advisable. Such action should provide for the control of emissions of dense smoke, dusts, fumes, gases, etc., through some form of regulation of equipment, processes and materials used in installations which can or do emit pollutants and through enforcement of emission standards. Provision for undertaking investigation of pollution levels, source evaluation, public education, and a number of other factors would also be needed.

It is doubtful that the County Commissioners presently have authority to enact such a law or regulation. County (general) and city boards of health may have such authority (under Sections 3709.21 and 3709.20, respectively, of the revised code). City legislative bodies clearly have the needed authority.

In view of the area-wide nature of the air pollution problem in the vicinity of Steubenville, the economics and greater effectiveness that can be provided for by a large centralized control unit as compared to several small separate units and the cost of a suitable control unit (which might be too great for a single city to bear), it would be desirable to have uniform legislation and a single regulatory agency existing in Jefferson County. In view of the long delays involved in implementing the bi-state aspects of tri-county air pollution control, it is recommended that initial efforts be directed toward that which can be more rapidly accomplished on the Ohio side of the river.

The results of an emission inventory would be of great value in determining the specific features and areas of jurisdiction needed in any control legislation and control program.

An adequately supported control program must be established to implement any legislation which is enacted, since enactment of legislation alone cannot be expected to bring about control of pollution. Sufficient, technically qualified personnel, funds for supplies, laboratory and field equipment, etc., and administrative support are essential factors in a successful program.

Although considerable research is needed to provide solutions to a number of problems in the field of air pollution, it is unlikely that any official agency in the tri-county area is in a position to undertake such work. The local agencies will have to rely on other groups, both within and outside the state, for such efforts.

2. County Board of Health Rules, Regulations and Program

It may be decided by local authorities that it is possible and most feasible for the County Board of Health to adopt rules or regulations for the control of air pollution and to establish a control unit. Such action would provide for direct control program services in all areas outside of city health districts. Control program services within existing city health districts might be provided by this county unit on a contract basis, provided suitable control legislation were effective in the cities. Cities might well adopt the same rules and regulations established by the county.

3. City Action

It may be found that it is most suitable for cities to enact ordinances or city boards of health to adopt rules and regulations to provide for control program activities. Such factors as desires for home rule, sources of initiative, public interest, expediency, and others, will enter into consideration of such actions. Should this course be followed, one city, probably Steubenville, might also undertake control programs on a contract basis for the other cities wherein suitable legislation is in force. However, a significant weakness in such a regime would be the lack of any mechanism to control sources outside of city health districts.

4. Contracts with the County Commissioners

It would be possible for individual cities to adopt legislation for the control of air pollution and contract with the county commissioners for its implementation. Legal study would indicate

whether or not these commissioners could, in some way, provide for similar control activity in areas outside of cities.

5. State Enabling Legislation

Careful consideration may reveal that none of these plans is sufficiently desirable or possible and that some form of state enabling act is needed to provide for another form of county-wide regime. Such an act might provide for county air pollution control boards along the lines of present general boards of health.

6. Unofficial Action

Action can be taken by civic and other groups, such as the present Citizen's Committee on Air Pollution Control, to exercise their influence in bringing about control of unsatisfactory conditions whether any new legislation is adopted or not. Such activities can be a valuable asset to a control program. In other areas, however, in the absence of an enforcement agency, they have not been very effective.

Unified Area Effort

Regardless of the nature of any legislation which may be developed, it would be well to bring other governmental agencies in the bi-state area into consultation regarding it during the preliminary stages so that their sentiments can be known and, insofar as practical, embodied in the first enactment in the area. This will serve the purposes of determining the interests of the other agencies and assisting in obtaining desirable uniformity of legislation which may be enacted in the future.

All of the interested official and unofficial groups in the area can utilize their good offices to foster activity in air pollution control throughout the area as they may be inclined to do so. Informal meetings on an area-wide basis would do much to enhance the possibilities for success of the program(s) which may come into being.

C
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APPENDIX A

Samuel S. McCormick, Mayor
Julius A. Pizzoferrato, Health Commissioner

Board Members
Phoebe Welsh, Pres. Pro-tem
Elmer Halm
Nathan Lipson
D.A. Macedonia, M.D.
R.W. Saltsman

THE CITY OF STEUBENVILLE

Department of Health

Steubenville, Ohio
July 10, 1956

Mr. Frank DeMartini
Deputy Chief Engineer
Community Air Pollution Section
Robert A. Taft Health Center
Cincinnati, Ohio

Dear Mr. DeMartini:

It was a pleasure meeting you yesterday at the conference held in the office of the Director of Industrial Hygiene, Dr. Thomas Mancuso.

In line with my request for a survey for the City of Steubenville Health District, which will be of great value to Steubenville in our Air Pollution Control Program, it is imperative that a survey be made so we will be in a position to present to Steel and Coal Operators, and citizens in general the need for an air pollution control program within the city of Steubenville and the tri-state area. If you will send the necessary forms for the city of Steubenville to make application, I will have them properly filled in and executed by the proper authorities.

Also, for your information, please note that Mr. John Laux, Chairman of the Citizen's Committee for Air Pollution Control, Exchange Realty Building, this city, is deeply interested in this problem. I appreciate the remark that you made that funds are limited, but Steubenville being a city of around 40,000, with an area of several hundred thousand population, would be an ideal city and area for said survey. Also the information gathered, I am sure would help air pollution control problems in other parts of the country.

You may rest assured that we in the city of Steubenville appreciate your cooperation and aid.

Sincerely yours,

/S/ Julius A. Pizzoferrato
City Health Commissioner

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APPENDIX B

July 31, 1956

Sen. George H. Bender
United States Senate

Dear Senator Bender:

This is in reply to your letter of July 19, 1956, enclosing correspondence from Mr. John J. Laux, Chairman of the local Smoke Control Committee and Executive Vice President and General Manager of WSTV, Inc., Steubenville, Ohio.

The interest in Steubenville, Ohio, in obtaining Federal assistance in air pollution problems was first called to our attention earlier this month by the office of Congressman Wayne Hays. A meeting previously had been scheduled on July 9 for representatives of the Public Health Service to discuss Ohio air pollution problems in general with the State Health Department. Arrangements were, therefore, made for Mr. Julius Pizzoferrato, Health Commissioner of Steubenville, to attend this meeting at the Ohio Department of Health in Columbus.

The Public Health Service Community Air Pollution Program and methods for assisting State and local air pollution control agencies through consultative service on specific and general problems, and assistance in the training of personnel, were described and discussed at this meeting. With reference to the Steubenville problem, Mr. Pizzoferrato plans to submit a request for Public Health Service assistance through the State Health Department. Such assistance is financed through appropriations available under Public Law 159 - 84th Congress. We are looking forward to working with the officials of Steubenville in surveying and evaluating their air pollution problem.

The enclosures with your letter are returned as requested.

Sincerely yours,

sgd Otis L. Anderson
Assistant Surgeon General
Chief, Bureau of State Services

Enclosures
cc: Reg. V - Chicago
Ohio State Health Department
Mr. Pizzoferrato
Mr. Stern - SEC
Mr. F. Tetzlaff:vm 7/30/56

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APPENDIX C

August 13, 1956

JJS:MaC

Mr. Julius A. Pizzoferrato
Health Commissioner
Steubenville, Ohio

Dear Mr. Pizzoferrato:

We find that it would be possible to have Messrs. Jean Schueneman and Sam Rogers of our staff visit Steubenville on August 28 and 29 to assist the city in an evaluation of matters related to atmospheric pollution. As we understand the purposes of the visit, from our past conferences and correspondence, these men would make a general appraisal of the atmospheric pollution problem in and around the city and make suggestions for a long-range local program directed toward the preservation and restoration of the quality of the atmosphere in the area.

We will rely on you to make arrangements for our men to meet with the other concerned parties in the area who would be able to contribute information bearing on the matter. By carbon copy of this letter, we are informing state officials of this proposed visit because I believe that participation of a state representative would be beneficial and we would be happy to work with him.

We are looking forward to working with you and hope that these arrangements will be suitable to you.

Sincerely yours,

F.E. DeMartini, Deputy Chief
Community Air Pollution Program

cc: Region V
Dr. Mancuso
Mr. Tetzlaff